

extend between top face 12 and bottom face 14. Regions of the ceramic block surfaces, such as top surface or face 12, are screen-printed, in a well-known manner, with conductive metal material such as a silver paste to form metallic elements of the filter leaving the bare ceramic surface material of the ceramic block between the filter elements. The printed elements 36 and 38 rise above the top face of planar surface 12 of the ceramic block and include an input pad 28 and an output pad 30 that may wrap around between top face 12 and side face 16. The wraparound configuration is particularly adapted for surface-mount connections when a filter is subsequently incorporated into an electronic package. The side faces 16 and 18, bottom face 14, and end faces 20 and 22 are covered with a continuous metal plate that forms a ground element 32. At face 16, ground plate 32 is separated from input pad 28 and output pad 30 by bare ceramic regions 34 and 35 to prevent electrical short-circuiting. These bare ceramic regions 34 and 35 are created when the I/O pads are screen-printed on the ceramic substrates. Through-holes 24 and 26 are coated with conductive metal that extends onto the top face 12 to include the resonator pads 36 and 38 that are surrounded by bare ceramic surface. In accordance with the prior art, pads 36 and 38 include notches 40 and 42 for tuning the filter.

In the Claims:

Please cancel claims 1-17.

Please add new claims 27-38 as follows:

27. A method of manufacturing an RF ceramic filter comprising the steps of: forming a block of ceramic material having an outer surface with at least one pair of opposing sides and defining a plurality of through holes extending between the opposing sides;

covering the block with a conductive coating; heat treating the coated block; and ablatively etching a selected area of the heat-treated coated block to form a pattern of metallized and unmetallized areas on the block.

wherein the step of ablatively etching is carried out such that the unmetallized areas are recessed into the block of dielectric material.

28. The method according to claim 27 further comprising the step of heat treating the patterned block.